

The remainder of February and early March look much more productive than the month of January. Today's system marks the start of a wet period with decent moisture, and, importantly, lower snow levels. While we might not make up for the dismal January (17% of an average January for the Northern Sierra, 19% for the state), it is very likely that February will come in at, or possibly, above normal.

Today's newsletter will include an upcoming weather discussion, as well as a recap of California's climate for January, 2007.

This pattern change is being triggered by a strong deep center of low pressure over the Gulf of Alaska. This primes the shortwaves that come out of it with much colder air. The bottom of the deepening trough is at about 135 W. This is a much wetter pattern for California, and a snowier one. Yes, this means powder! This is not a warm, tropical setup, so snow levels will range between 5,000' to possibly as low as 2,000' during the next events. The timing is for the first system tonight/Thursday for NorCal, which barrels into SoCal Thursday night and Friday; then another that gets going early Monday, and moves across midweek to round out February.

Overnight tonight, the southern extent of the heavier precip that's now hitting the North Coast, southern Cascades and Shasta, will sag southward, across I-80 and US-50. With the realignment to a more N/S orientation for this first front, winds will be on the increase, as will precip intensity thanks to the jet dynamics, which are currently working their way down the backside of the trough. Sierra wind gusts will exceed 60 mph, and valley winds may gust to 45mph.

The National Weather Service has issued several bulletins, including a Winter Storm Warning from as far north as Lassen Park, all the way south through Yosemite, Kings Canyon, and the Tulare Mountains; a Winter Storm Watch over the Grapevine; as well as a Wind Advisory for the north and central Sacramento Valley:

<http://www.wrh.noaa.gov/cnrfc/warnings.php>

Highlights to this weather discussion: The Feather River Basin is forecast to receive as much as 5" over the next 10 days. The Central Coast will be impacted mainly on Thursday and Friday of this week, with amounts between 1" to perhaps an inch and a half in some locations. Heavy snow; from seven to sixteen inches of snow are possible in the San Diego County mountains.

As often happens with these colder systems, valley and foothill thunderstorms are possible Thursday, with a greater possibility Friday. This is the type of situation that can lead to cold-air funnel clouds.

The area where this might occur looks to be mainly in the San Joaquin Valley, stretching a bit further north to the Sacramento area, as well as south toward Fresno. Friday will also be one of those mornings that low-elevations will wake up to a dusting of snow; possibly down to 3,000' or lower for locations as far south as the Grapevine.

Another system moves our way late in the weekend, into early next week, but that is likely to confine itself to the North Coast at first. This could be a heavy rainmaker up in Northwestern California, with upwards of 1/2 to 1" of rain every 6 hours Monday/Monday night. There could be some impressive dynamics in place in the middle of next week, as well, as a buckle in the zonal flow pushes that energy across the state. The Tuesday night/ Wednesday storm could produce another 1 to 2" in the Feather River Basin. Northern Sierra snow levels at that time are projected to be around 5,000'.

Our current 8-station Northern Sierra precip stands at 88% of normal for February (7.0"), and at 23.1" for the season, which leaves us at 71% of seasonal average. We are at a deficit of approximately 9.6" for the season. Compare that to last time this year, when we were at 45.9" and 140%. Snowpack water content as of February 20 is 10.10" statewide average; 44% of average to date.

Hydrologically, Sacramento unimpaired runoff observed through January 31 was 3.0 million acre-feet (MAF), which is about 55% of average. The median forecasts of the Sacramento and San Joaquin Valley Water Year Type indices are "Dry," and "Critical," respectively.

January, 2007 was not only dry, but a temperature record breaker as well! From Mike Anderson's California Monthly Climate Summary, there were only 8 days that did not break a record somewhere in the state. There were 57 record highs, including 81 in Santa Maria on Jan. 9, with the highest recorded temp of 93 degrees at Camp Pendleton. There were 186 record lows, including -2 Big Bear Lake (a record) on Jan. 13, and the coldest recorded on Jan. 7; a -27 in Crestview, South Lahontan. January precipitation records include the 8-Station Index for January, 2007 only having 6 days of precip, for a total of 1.5"; 17% of long-term Jan average. That ranks as 6th driest January in 88 years of records. Statewide average precip was 19% of average. It was the all-time driest downtown Sacramento January since record keeping began in 1849, and the all-time driest in Red Bluff since 1934.

The next weather and climate newsletter will come out following this round of storms, and will include precipitation amounts, and a look at the long-range outlook. Apologies for any spurious embedded carriage returns; working on it.

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